

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Sub. 417
1-4. (CANCELED)

5. (CURRENTLY AMENDED) A eukaryotic virus pseudo-nucleocapsid consisting essentially of:

at least a portion of a viral capsid polypeptide, wherein the viral capsid polypeptide is SEQ ID NO.: 1 comprises at least the first 124 amino-terminal residues of a hepatitis C virus core protein; and

a tRNA molecule polynucleotide, wherein said viral capsid polypeptide and tRNA molecule polynucleotide together participate in formation of a generally spheroid pseudo-nucleocapsid in vitro after which no additional purification step is required.

6. (CURRENTLY AMENDED) The virus pseudo-nucleocapsid of claim 5, wherein said viral capsid polypeptide is a flavivirus capsid polypeptide homologous sequence of a core protein from a member of the *Flaviviridae* family.

Decided
7-49. (CANCELED)

50. (PREVIOUSLY ADDED) The virus pseudo-nucleocapsid of claim 5, wherein said eukaryotic virus pseudo-nucleocapsid is formed in an in vitro array.

51. (PREVIOUSLY ADDED) The virus pseudo-nucleocapsid of claim 5, wherein said viral capsid polypeptide is a recombinant polypeptide.

52-54. (CANCELED)

55. (CURRENTLY AMENDED) The virus pseudo-nucleocapsid of claim 5, wherein said tRNA molecule polynucleotide is selected from the group consisting of hepatitis C virus genome and flavivirus genome member of the *Flaviviridae* family.

56. (PREVIOUSLY ADDED) The virus pseudo-nucleocapsid of claim 5, wherein said virus pseudo-nucleocapsid is formed in an insect cell host.

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~~57.~~ (PREVIOUSLY ADDED) The virus pseudo-nucleocapsid of claim ~~5~~¹, wherein said virus pseudo-nucleocapsid is formed in an Sf-9 insect cell.

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~~58.~~ (PREVIOUSLY ADDED) The virus pseudo-nucleocapsid of claim ~~5~~¹, wherein said virus pseudo-nucleocapsid is formed in a mammalian cell host.

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~~59.~~ (PREVIOUSLY ADDED) The virus pseudo-nucleocapsid of claim ~~5~~¹, wherein said virus pseudo-nucleocapsid is formed in a yeast cell host.

60. (CURRENTLY AMENDED) The virus pseudo-nucleocapsid of claim 5, wherein said viral capsid polypeptide is formed by adding to a cell-free in vitro system a recombinant DNA, wherein the recombinant DNA is selected from the group consisting essentially of at least the first 124 amino-terminal residues of the hepatitis C virus core protein and ~~or~~ a flavivirus capsid polypeptide homologous sequence of a core protein from a member of the Flaviviridae family.

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61-65 (CANCELED)

66. (WITHDRAWN)

67. (CANCELED)

~~68. (WITHDRAWN)~~

69. (CURRENTLY AMENDED) A method of preparing a eukaryotic virus pseudo-nucleocapsid consisting essentially of:

contacting a portion of a recombinant viral capsid polypeptide with a tRNA molecule polynucleotide, wherein the recombinant viral capsid polypeptide is SEQ ID NO.: 1 comprises at least the first 124 amino-terminal residues of the group consisting of a hepatitis C virus core protein and homologous sequence of a core protein from a member of the *Flaviviridae* family; and

allowing said recombinant viral capsid polypeptide and tRNA molecule polynucleotide to participate in formation of a generally spheroid pseudo-nucleocapsid in vitro after which no additional purification step is required.

70. (WITHDRAWN)

71. (CURRENTLY AMENDED) A method of preparing a eukaryotic virus pseudo-nucleocapsid consisting essentially of:

purifying a viral capsid polypeptide, wherein the viral capsid polypeptide is SEQ ID NO.: 1 at least the first 124 amino-terminal residues of a hepatitis C virus core protein or a homologous sequence of a core protein from a member of the *Flaviviridae* family;

introducing to the purified viral capsid polypeptide core protein a tRNA molecule polynucleotide of at least 10 nucleotides and able to form a stem-loop structure; and

allowing generally spheroid pseudo-nucleocapsids to form.

72. (CURRENTLY AMENDED) The method of claim 71, wherein inhibitors of eukaryotic virus pseudo-nucleocapsid assembly and disassembly are added.

73. (PREVIOUSLY ADDED) The method of claim 71, wherein the generally spheroid pseudo-nucleocapsids are crystallized.

74. (CURRENTLY AMENDED) A method of preparing a eukaryotic virus pseudo-nucleocapsid consisting essentially of:

constructing a vector containing SEQ ID NO.: 1 at least the first 124 amino-terminal residues of a hepatitis C virus core protein or a homologous sequence of a core protein from a member of the *Flaviviridae* family

using the vector to express a the core protein containing SEQ ID NO.: 1 in vitro;

purifying the core protein;

introducing to the purified core protein a tRNA molecule polynucleotide of at least 10 nucleotides and able to form a stem-loop structure; and

allowing generally spheroid pseudo-nucleocapsids to form.